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(54) Title: POLYMERISATION AND OLIGOMERISATION CATALYSTS

$$(E^{2})_{n}$$

$$D^{1} \longrightarrow M(X)_{y}(L)_{z}$$

$$(A)$$

(57) Abstract: A polymerisation catalyst comprising (1) a transition metal compound of Formula A, and optionally (2) an activating quantity of a Lewis acid activator, Formula (A), wherein Z is a five-membered heterocyclic group containing at least one carbon atom, at least one nitrogen atom and at least one other hetero atom selected from nitrogen, sulphur and oxygen, the remaining atoms in the ring being nitrogen or carbon; M is a metal from Group 3 to 11 of the Periodic Table or a lanthanide metal; E¹ and E² are divalent groups from (i) aliphatic hydrocarbon, (ii) alicyclic hydrocarbon, (iii) aromatic hydrocarbon, (iv) alkyl substituted aromatic hydrocarbon (v) heterocyclic groups and (vi) heterosubstituted derivatives of groups (i) to (v); D' and D² are donor groups; X is an anionic group, L is a neutral donor group; n = m = zero or 1; y and z are zero or integers. The catalysts are useful for polymerising or oligomerising 1-olefins.



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